

# ULTRASONIC INSTRUMENT INSERTS

## Abstract of Disclosure

Efficiency-modulated ultrasonic dental inserts are disclosed for preventing the overpowering of power-sensitive tips. The inserts are useful in a handpiece having an induction coil disposed about a well and operable with an adjustable power supply having a maximum power output setting. An efficiency-modulated magnetostrictive element is adapted to be received in the well. A velocity transducer has proximal and distal ends. The proximal end is attached to a distal end of the magnetostrictive element. A power-sensitive tip has a proximal end secured to the distal end of the velocity transducer. The efficiency of the magnetostrictive element is matched with the power range of the tip to prevent overpowering the tip at the maximum power output setting.

## Figures